and	s conc Al ato tions.	ms in	that the c	Ti and compound	Cr atoms d Ni <sub>3</sub> Al.	displ Orig.	ace Al	latoms has: 2	, and thatales,	t W di 1 graj	splace h, and	s both	H1	
SUB	CODE:	11/	SUBM	DATE:	02Aug65/	ORIG	REF:	010/	OTH REV	007				
		Ý												
٠										4	- 1			
			•		, , , + ,				•	٠	Y			
						•		•			•	;		
												*,		
	••				÷ .								•: 3	
•				•										
				. '			•					•	•	
											•			-
Card	3/3													ŀ

(A)

SOUNCE CODE: UR/0000/66/cco/000/0064/0071

AUTHOR: Arbuzov, M. P.; Kachkovskaya, E. T.; Khayenko, B. V.

ORG: none

TITLE: Study of the electronic structure and atomic structure of TiC and TiO SOURCE: AN BSSR. Institut fiziki tverdogo tela i poluprovodnikov. Khimicheskaya svyaz' v poluprovodnikakh i termodinamika (Chemical bond in semiconductors and thermodynamics). Minsk, Nauka i tekhnika, 1966, 64-71

TOPIC TAGS: titanium compound, oxide, carbide, chemical bonding, x ray diffraction study, atomic structure, electron density

ABSTRACT: In view of the little attention paid in the past to the state of the titanium, carbon, oxygen, and nitrogen atoms in TiC, TiO, and TiN, and consequently to the nature of the chemical bond in these compounds, the authors carried out an x-ray diffraction investigation to determine the atomic scattering factors of Ti, C, and O in TiC and TiO and the distribution of the electron density in the crystal lattice of titanium carbide and oxide. The study was made in filtered Mo-Ka radiation, at  $\sin \Theta / \lambda$  ( $\Theta$  - spectral angle,  $\lambda$  - wavelength), the atomic scattering factors of Ti and C in TiC and of O in TiO deviate from the theoretical values, indicating that the atomic factors at these angles vary with variation of the state of the atoms. These variations point to specific changes in the distribution of the electron density in

Card 1/2

UDC: 541.57

ACC NR: AT7003877

these compounds compared with neutral atoms. A study of the distribution of the electron density has shown that the latter has the maximum value between the atoms in the [100] direction, between the nearest Ti and C or 0 atoms, thus indicating the presence of an electronic "bridge" between these atoms. These results lead to an estimate of the number of electrons which should be bound with the atoms Ti, C, and O in TiC and TiO. From the numbers of the electrons and from the estimated atomic radii of ionization close to +C, and the carbon having a negative charge (~-1). In TiO the A scheme of the electronic structure of the carbide and oxide of titanium is proposed on the basis of the results, and it is concluded that several types of bond are realized between the atoms of these compounds, each bond constituting a combination of several factors. Orig. art. has: 4 figures, 1 formula, and 1 table.

SUB CODE: 20, 07/ SUBM DATE: 20Aug66/ ORIG REF: 009/ OTH REF: 007

Card 2/2

# KHYAKHKO T'N Electrophysiological data on the parabiosis of the muscle during contractions. Uch.zap.Len.un.no.176:108-118 '54. (MLRA 9:9)

1.Kafedra obshchey biologii Leningradskogo meditsinskege stomatelegicheskogo instituta. (MUSCLE) (BLECTROPHYS 10LOGY)

KHAYES, L. B.; KALENCHUK, Z. N. (Arkhangel'sk)

Case of chloroma of the spine. Vop. neirokhir. no.6:59-61 (61. (MIRA 14:12)

1. Chlastnaya klinicheskaya bolinitsa.

(SPINE\_TUMORS) (CHLOROMA)

KHARS, S.I.

Effect of nicotinic acid on sugar, glyogen, and lactic acid level in the blood. Klin. med., Moskva 30 no. 11:88 Nov 1952. (CLML 23:5)

1. Of the Department of Biochemistry (Head - Docent M. D. Kiverin), Arkhangel'sk Medical Institute.

KHAYES USSR/Medicine' - Pharmacophysiology

FD-865

Card 1/1

Pub.30 - 16/18

Author

: Khayes, S. I.

Title

which the property and a complete : Changes in the sugar and glycogen content in the blood after administra-

tion of insulin or adrenalin combined with nicotinic acid

Periodical: Farm. i toks. 17, 58-59, Jul/Aug 54

Abstract

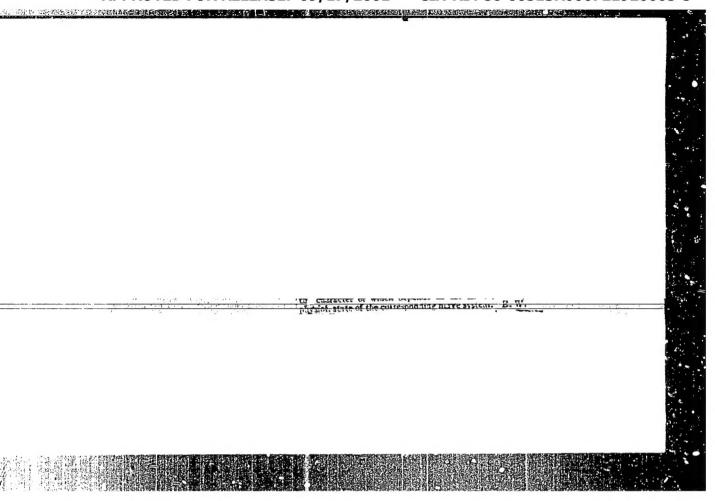
: Experiments on animals and humans showed that the effects of insulin and adrenalin on the sugar and glycogen contents of the blood were neither increased nor decreased by small or large supplementary doses

of nicotinic acid. No references are cited.

Institution: Chair of Biochemistry (Head - Docent M. S. Kiverin) of the Arkhangel'sk

Medical Institute

Submitted



His. In., S. I.: "The effect of micetimic edition was content of the gar, dycorem, and hadic editin the Hood," On the Death Rediction In the mice S. L. Rignor. Cortain P.S. (Stenario Lion for the Death of Entire in the local Relumens).

So: anishmens 1 topic!, No 23, 1963.

KHAYNS, S.I.

Physiological mechanis of the action of nicotinic acid. Vitaminy no.4:144-147 '59. (MIRA 12:9)

1. Kafedra biokhimii Arkhangel'skogo meditsinskogo instituta.
(NICOTINIC ACID) (CARBOHYDRATE METABOLISH)

- 1. YEROMOV, V. K.: KHAYADH, M. M.
- 2. USSR (600)
- 4. Electric Networks
- 7. Protection from short circuit currents in underground, low voltage, electric power networks. Prom. energ. 9 no. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March, 1953. Unclassified.

YERFRONGV, V. K., KHAYESH, M. E.

Short Circuits

Short Circuits in underground low-tension electric systems. Ugol' 27 no. 3 (312), 1952.

9. Monthly List of Russian Accessions, Library of Congress, Fay 1993, Uncl

- 1. EFRINCY, V. K., <u>KIÄSSY, K. M., Engs</u>.
- 2. USSR (600)
- 4. Coal Mines and Mining Safety Measures
- 7. Safeguarding against short circuits in underground low voltage electric systems, Ugol\* 20, no. 2, 1953.

Mouthly List of Russian Accessions, Library of Congress, May 1953, Unclassified.

KHAYESH, Maka Moiaeyevich; AFONINA, G., vedushchiy redaktor; PATSALYUK, P., tekhnicheskiy redaktor

[Mining electrician] Shakhtnyi elektroslesar'. Kiev. Gos. izd-votekhn. lit-ry USSR. 1957. 165 p. (MIRA 10:3) (Electricity in mining) (Electric engineering)

27(3)

PHASE I BOOK EXPLOITATION

SOV/2324

# Khayesh, Maks Moiseyevich

- Elektrobezopasnost'.v podzemnykh vyrabotkakh; posobiye dlya obshchestvennykh inspektorov po okhrane truda (Safety Measures for Work With Electricity in Underground Mining; Manual for Public Labor Inspectors) Moscow, Profizdat, 1958. 134 p. 5,000 copies printed.
- Ed.: A.A. Veselkina; Tech. Ed.: A.A. Golichenkova.
- PURPOSE: This is a manual for public inspectors of worker safety and for technical inspectors as a manual on electrical safety measures in underground mining.
- COVERAGE: The book contains basic information on electrical safety in underground mines. Essential data characterizing specific features of electrical mine equipment operation are presented and methods of checking and controlling the state of underground electrical networks are discussed from the standpoint of safety. There are 31 references, all Soviet. No personalities are mentioned.

Card 1/4

# ARPROVED FOR BELEASE: 09/05/2001 CIA-RDP86-00513/R000721920005-

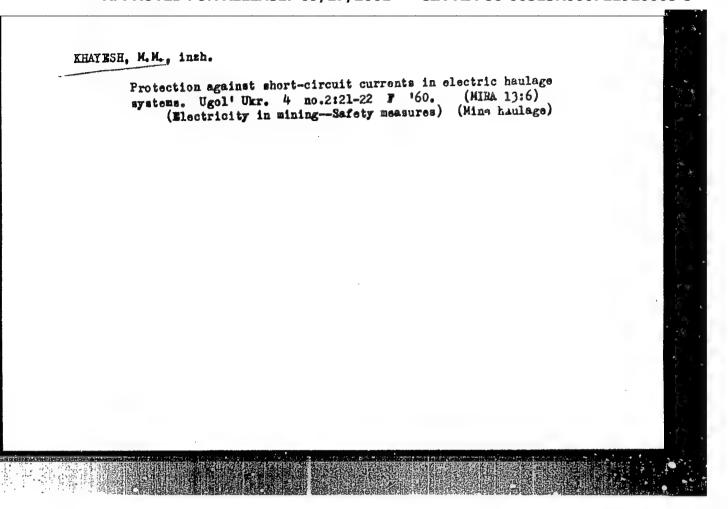
TARTE OF CONTENTS:

IABLE OF CONTENTS.	
I. Mine Atmosphere and Basic Features of Electrical Equipment The atmosphere in mines Electrical mine equipment	3 11
Fifort of electric current	19 19 25
III. Electric Shock Prevention in Mines Individual protective measures against electric shock Instruments and devices for operating live equipment Methods of protection against electric shock	32 32 36 39
IV. Prevention of Fires Caused by Electricity in Underground Mines Causes of fires from electricity in coal mines Electrical protective equipment in mines and basic principles	58 59

Card 2/4

SUKHAREVSKIY, V.M., kand.tekhn.nauk; KHAYESH, H.M., inzh.

Underground fires caused by d.c.electric currents and the prevention of these fires. Bezop.truda v prom. 4 no.1:9-11 JA '60. (MIRA 13:5) (Coal mines and mining--Fires and fire prevention)



KHAYESH, S.L., inghener-teplotckhnik.

Power supply of large coal mines. Ugol' 29 no.4:21-25 ap '54.

(MLRA 7:2)

1. Karagandagiproshakht. (Electricity in mining)

(Coal mines and mining)

KHAYFETS, L.G., inzh.; CHEKAREV, V.A., kand.tekhn.nauk

Putting order in work organization and the establishment of technical norms for mining operations. Shakht.stroi. 4 no.2: 4-6 F '60. (MIRA 13:5)

l. TSentral'noye nauchno-issledovatel'skoye byuro pri Nauchno-issledovatel'skom institute ekonomiki stroitel'stva Akademii stroitel'stva i arkhitektury SSSR (for Kheyfets). 2. Nauchno-issledovatel'skiy institut ekonomiki stroitel'stva Akademii stroitel'stva i arkhitektury SSSR (for Chekarev).

(Mine management)

MIROSHNICHENKO, A.M., kand. tekhn. neuk; PANCHENKO, S.I., doktor
tekhn. nauk; SHTROMHERG, B.I., kand. tekhn. nauk; FRISHEERG,
V.D., kand. tekhn. nauk; BAYDALINOV, P.A., inzh.; GRYAZNOV,
N.S., doktor tekhn. nauk; ZASHKVARA, V.G., doktor tekhn. nauk;
LAZOVSKIY, I.M., kard. tekhn. nauk; MARINICHEV, B.T., inzh.;
FEL'DBRIN, M.G., kand. tekhn. nauk; BAKUN, N.A., inzh.; BARATS,
B.M., inzh.; VOZNYY, G.F., kand. tekhn. nauk; MIKHAL'CHUK, A.M.,
inzh.; TOPORKOV, V.Ya., kand. tekhn. nauk; FLORINSKIY, N.V.,
inzh.; KHAYET, A.N., inzh.; SHELKOV, A.K., inzh., red.; ARONOV,
S.G., doktor tekhn.nauk, red.; PREOBRAZHENSKIY, P.I., inzh., red.

[Manual for coke chemists in six volumes] Spravochnik koksokhimika v shesti tomakh. Moakva, Izd-vo "Metallurgiia." Vol.1.
[Source of raw materials and preparation of coal for coking]
Syr'evaia baza i podgotovka uglei k koksovaniiu. 1964. 490 p.
(MIRA 17:5)

#### "APPROVED FOR RELEASE: 09/17/2001

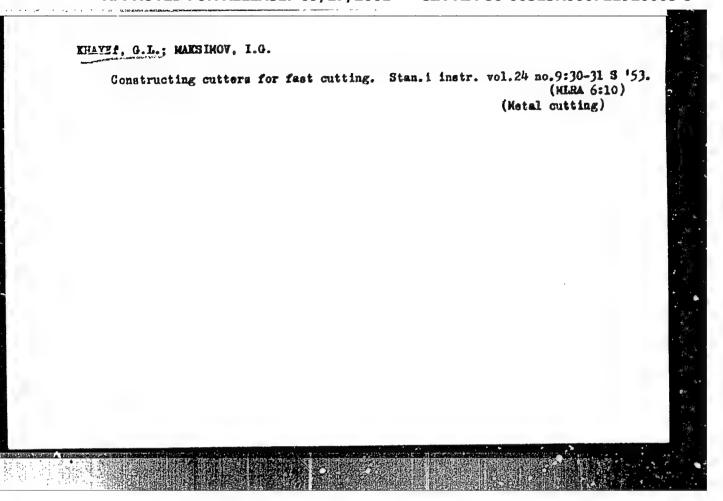
CIA-RDP86-00513R000721920005-5

SHUL'MAN, P.T., inshener, laureat Stalinskoy premii; KUENETSOV, V.O., inshener, laureat Stalinskoy premii; KUENETSOV, V.O., inshener; laureat Stalinskoy, M.G., redaktor; BESTERENKO, D.K., tekhnicheskiy redaktor.

[High-speed metal cutting; experience of the Movo-Kramatorsk Stalin Machine Construction Plant (Order of Lenin)] Shvydkisna obrobka metaliv rizanniau; dosvid novo-kramatorsk koho ordena Lenina mashynobudivnoga savodu imeni Stalina. Kyiv, Dershavne naukovo-tekhn. vyd-vo mashynobudivnoi lit-ry, 1952. 103 p.

(Metal cutting)

(Metal cutting)



APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721920005-5"

Dissertation Work for Obtaining the Degree of Candidate of Technical Sciences on the Theme: Investigation of the Forces of Cision and Wear of Hard-Helting Cutters in Cutting Steel Under EXESTRATION Conditions of Continuous Cutting." Mos, TsBTI, 1957. 15 pp (Gosplan USSR, Central Sci Res Inst of Technology and Machine Construction TsNIITMash), 100 copies (KL, 51-57, 93)

- 22 -

Characteristics of cutting processes and efficient conditions for cutting off steel by hard alloy cutters. Vest. mash. 38 no.1:77-83 Ja '58. (Metal cutting)

Teatral by manchon-saladoratel skip institut rethnologia is analizontropaniya he shoundrate skip institut rethnologia is analizontropaniya becknost seem to constructions and shire Electrical Informative the Store of Constructions and shire Electrical Sciences, Frofescor Rangia, 1799, 210 pp. (Series lies 1.55cmily km. 9); 5,500 copies princip.  44. (Elite page): I. V. Marywesev, Doncor of Technical Sciences, Frofescor Ed. (Filting Monch P. A. G. Whittin, Ed. Processor Ed. (Internate on Tempora and Lands Monch P. A. D. Stituti, Ed. (Laterate on Tempora and Lands Monch P. A. D. Stituti, Ed. (Laterate on Tempora and Laterate and Laterate and Laterate on Tempora and Laterate and Laterate on Tempora and Laterate and Laterate and Laterate on Tempora and Laterate and L	1	50V/2885		1 detailor machina and Pachine Eloments)		or designers, rs in the	with experiental title or concernad () in Industry. Iteracia and all alements are object of the py work hardenia, eternal burn. Eternal burn. Eternal burn. Eternal burn. Eternal burn. Eternal burn. Eternal purn.	A. Sten'so. Te Moro- hew Machine- tine Parts 76	geneery of the ingressions and ingressions of on effects of re of Technical	are arelyzed. A by Chiler lening process. Ire with a	stallurgical_	are schnique burnished	,	
Tentral'ny nauchno-isaledowate meabhnostroyenlys Foryshenlys prochnost elementor [Increasing the Strugge of C. Honore, Rangir, 1959, 210 p. 5,500 copies printed.  Ed. (%itts page): I. W. Eddrsw. Forfsmeror Ed. Hintis Pancial: Fortsmeror Ed. Hintis Tanague Ranks. P. B. Mithing (Rangis): Throad and action of the process actions we of authority. Familia process actions we of any with the practices in each an earlier process. The collection containwork done recently by Talling work done recently by Talling work done recently by Talling acrises a with the practices in each in surface machine particularies in each in surface and with the printing of large machine particularies and mentions. If a contain particularies with the printing of large machine particularies with the printing actions are described to the principles of selection, the principles of selection and the printing Plant) in Escenal Burn With Bolleys and sond actions and the described and sond pancial attachesm the described and sond pancial attachesm the described the described, where the described and sond pancial attachesm the described, and sond pancial attachesm the described and sond pancial attachesm the described and sond pancial attachesm the described, and sond pancial attachesm the described, and sond pancial attachesm the described, and sond pancial attachesm and sond described, and sond pancial attachesm and sond described, and sond pancial attachesm and sond pancial attachesm and sond pancial attachesm and sond described, and sond pancial attachesm and sond described, and sond pancial attachesm and sond described and sond d			l'skiy instibut tebb	konstruktsly i deta onstructionsl sout My (Series: Its: 231	Leev, Dottor of Tecl A. G. Mikitin, End Ed. for Literature E. A. Pompaarev, Eng	icles is intended for its research works	M.Sh. The experiments M.Sh. The experiments face work hardening in to increase the sire to increase the sire and constructional in Camanhos parts in Experiment in extra in Experiment St. St. St. St. St. St. St. St. St. St	ollow each article. Algal Sciences 1 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	the the burnishing foot ing the proof and discussed. A perts end date on a pare of East of the proof East of the try Plii	iopped steel shafts are shafts work-hardered to ed to any work-harderid d on a milling beline pring-ectuated striking	sing the Life of Reshing With Bollers	Actions that the Mith the the of testing		
Tentral my name as a name of the contral of the con		PHASE I BOOK EXI	chno-lesledovate) mlya	the Strength of Golfs, 1959. 210 p.	: I. V. Kudryavi !. (Inside book): !!kind: Managing !ing (Mashgis):	collection of art: merm, and acienti ing industry.	objection containmently by Takilin titles insended of machine parts Sevens articals fatigue strength ractices of MEE. The machine parts rectices of MEE. The machine parts are machine parts	d. Beferences formation of Technicate of Technication of The Things In Marcelle of Marcell	of conducting exactible of actions of actions of action of actions of act	itigue testa on at ne drawn between hafa moot subject and was econglished haent having a fp	ngineer7. Increa	of the burnld some problems of are discussed.	-	
		125(2,5)	Tsentral nyy nau	Foryshentys proc (Increasing t Rescon, Rash 5,500 copies	Ed. (Title page) Professor: Ed Ed.: V. D. E		COVERAGE: The order than the pro- more data the pro- lighter that pro- coverage life of coverage of la- lindustrial pro- lindustrial pro- lind	Are mentions the contions of the continuous of the continuous of the continuous of the continuous of the contions of the continuous of	The technique tool, the pri the derices u diagrams of b burnishing is Kudrratian. I	Results of fa Comparisons a peaning and s Fillse peaning special atracts a spherically	Barater & I. (E	Constructions described, and of burnishing surfaces in o		

Khayet, G.L., Engineer AUTHOR:

SOV/129-59-2-11/16

TITLE:

Machinability of Steel and Cast Iron in Cutting-off Operations by Means of Carbide-tipped Cutting Tools (Obrabatyvayemost' staley i chuguna pri otrezke

tverdosplavnymi reztsami)

PERIODICAL:

Metallovedeniye i Termicheskaya Obrabotka Metallov,

1959, Nr 2, pp 49 - 53 (USSR)

ABSTRACT: Investigations have shown that the friction forces along the wall of the recess during cutting-off operations bring about an appreciable increase in the cutting forces and the slot walls aim to carry away the metal of the surface layers of the side faces of the chip. This is prevented by the front flank under the auxiliary cutting edge, as a result of which the specific cutting pressure increases. As the cutting edge gets nearer to the axis of the blank, the cutping force increases and thereby the difference will also increase between the forces required for free cutting and those required for cutting off. Experimental data are graphed in Figure 1. Contrary to the accepted views, the author did not find any direct proportionality between the width of the cutting off slot and the magnitude

Card1/3

SOV/129-59-2-11/16 Machinability of Steel and Cast Iron in Cutting-off Operations by Means of Carbide-tipped Cutting Tcols

of the cutting forces. Sketches in Figure 2 show the geometrical parameters of the cutting tips of cutting-off tools which were found to yield optimum results for cutting-off medium carbon steels, applying cooling. author states that tools with this geometry are also favourable for most of the other materials. Data are given on the dependence of the service life of the cuttingoff tool for various materials and various Data on the machining conditions (graph, Figure 3). relation between the hardness of the machined materials and the performance indices are graphed in Figure 4. The experimental data given in the paper indicate that the influence of the machined material on the cutting forces and the optimum feeds and cutting speeds differ from the corresponding values in other machining operations. This is due to the considerable forces of friction between the chip and the slot wall and to the increased influence of brittle wear. These unfavourable features manifest themselves most clearly in materials which are difficult Card2/3 to machine. It is stated that by using geometrical

SOV/129-59-2-11/16

Machinability of Steel and Cast Iron in Cutting-off Operations by Means of Carbide-tipped Cutting Tools

parameters of the cutting tips as shown in Figure 2, and by selecting correctly the cutting regimes, the difficulties can be alleviated and a considerable increase in productivity obtained.

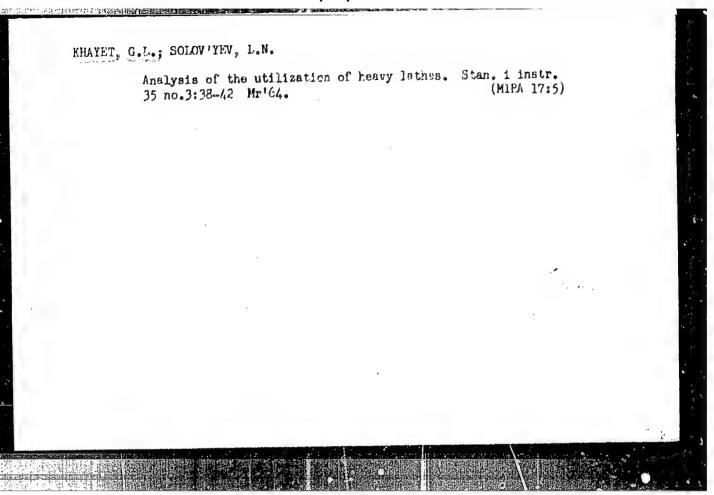
There are 4 figures and 3 tables.

ASSOCIATION: Nove-Kramatorskiy mashinostroitel'nyy zavod (Nove-Kramatorskiy Machine Construction Works)

Card 3/3

KHAYET, G.L., kand.tekhn.nauk; STEN'KO, D.A., inzh.; BRUSILOVSKIY, B.A., inzh.

Experience of the Novo-Kramatorsk Machinery Plant (Kramatorsk)
in hard-facing large parts by rolling with rolls. [Trudy]
TSNIITMASH 91:76-94 '59. (MIRA 12:8)
(Hard facing) (Kramatorsk-Machinery industry)



APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721920005-5"

KHAYET, G.L., kand. tekhn. nauk; KORKH, L.M., inch.

Selecting tools and cutting conditions for machining antifriction ceramic-metal materials. Mashinostroenie no.5:35-37 S.0 '65.

(MIRA 18:9)

#### "APPROVED FOR RELEASE: 09/17/2001

#### CIA-RDP86-00513R000721920005-5

SOURCE CODE: ACC NR. AP6019849 UR/0418/66/000/001/0029/0031 AUTHOR: Khayet, G. L. (Candidate of technical sciences); Korkh, L. M. (Engineer) TITLE: Improving surface finish during turning of cermet antifriction material SOURCE: Tekhnologiya i organizatsiya proizvodstva, no. 1, 1966, 29-31 TOPIC TAGS: antifriction material, surface finishing, bushing, cutting tool, contact stress, iron, copper, graphite, cermet wear material ABSTRACT, The article is a report on experiments done at the <u>Kramatorsk Industrial</u>
<u>Institute</u> to develop practical recommendations for turning antifriction <u>cermetimateri</u> als based on iron with admixtures of 2.5% copper and 1.5% graphite with a 20% porosity. This material is strong, ductile, and has good antifriction properties. Bushing # Vith the following dimensions were machined: 90 mm outside diameter, 50 mm inside diameter and 85 mm long. These bushings were made of PZh-2M bowder sintered at 1150°C. T15K6 hard-faced cutters were used for turning the specimens. The UDM-1 dynamometer was used for measuring cutting forces. Work surface irregularities were measured with the MIS-11 microscope. All data were taken as the result of 8-10 measurements and each test was repeated 4-5 times. The authors discuss various contradictions in the literature on the selection of individual shapes of cutter surfaces. The following cutter parameters are recommended for finishing: rake  $\gamma=8^{\circ}$ , clearance  $\lambda=0^{\circ}$ , side cutting edge and side relief angle  $\alpha$  and  $\alpha_1=6^{\circ}$ , nose angle  $\phi=45^{\circ}$ , end cutting edge angle  $\phi_1=20^{\circ}$  and 621.941.1:621:762 Card 1/2 UDC:

#### "APPROVED FOR RELEASE: 09/17/2001 CIA-R

CIA-RDP86-00513R000721920005-5

ACC NR. AP6019849

1 10 ( it wife)

tool radius r=1 mm. An expression is given for calculating the relationship between surface irregularities and cutting conditions. The effect of cutting conditions on cutting stress for machining with cutters having a given geometry is studied. This is very important for mass production. The vertical  $(P_z)$ , radial  $(P_y)$  and axial

 $(P_x)$  components of cutter forces can be determined for practical purposes by using the

following formulas:

 $P_{s} = 20 \, t^{0.95} \cdot S^{0.6};$ 

 $P_y = 10 t^{0.9} S^{0.5}$ ;

P = 6 (1.0 . 50,45 .

Cutting conditions based on this study are presently being used for machining cermet materials. Orig. art. has: 1 table, 5 formulas.

SUB CODE: 11, 15/ SUBM DATE: none/ ORIG REF: 005

Card 2/2/MCF

HAYET, L.I., kandidat meditsinskikh nauk (Khar'kov)

Visual nids in teaching obstetrics. Fel'd. 1 akush. no.10:55-57

(NLER 8:12)

(OBSTETRICS --STUDY AND TEACHING)

KHAYET, M.Z.; BALAKIREV, A.A.; LICHNEVSKIY, M.I.

Operation of specific-weight gauges in a .erual-cracking unit.
Nefteper. i neftekhim. no.6:36-40'63' (MIRA 17:7)

1. Novo-Gor'kovskiy neftepererabatyvayushchiy zavod i Spetsial noye konstruktorskoye byuro po avtomatike v neftepererabotke
i neftekhimii.

KHAYET, V.

Familiarize yourself with these publications. Sel'. stroi. no.12:28-29 D'62. (MIRA 16:1)

1. Starshiy redaktor Proftekhnizdata.

(Bibliography-Building)

ACC NR: AP6025389

SOURCE CODE: UR/0366/66/002/007/1155/1157

AUTHOR: Kruglikova, R. I.; Kalinina, G. R.; Khayetakaya, Y. V.; Leonova, G. S.

ORG: Moscow Institute of Fine Chemical Technology (Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova)

TITLE: The use of alkoxy methylamines in the preparation of a-acetylenic amines

SOURCE: Zhurnal organicheekoy khimii, v. 2, no. 7, 1966, 1155-1157

TOPIC TAGS: acetylenic amine, alkoxy methylamine, ACETYLENE COMPOUND, AMINE, CHEMICAL REACTION
ABSTRACT:

The previously unreported I—V acetylenic amines (see table) were obtained by the Mannich reaction in the presence of CuCl using alkylalkoxy methylamines as aminomethylating agents:

Card 1/2

UDC: 547.312+547.233

		(R₃NCH₃C≕CCH₃)₃X													•	14	: .		; ;		
٠	No.	l a	×	Yiel th 10	bp (p 1	n • <del>•</del> ••)	4."		Found	61 61		ound M			•						
	. ¥	CHI CHI CHI CHI	8	7/1 HO 7/3 74	101103° 120123 114114. 141143 120123 79.580	0.04) 0. 5 (0.4) 0. 0.55) 0. (0.7) 0.	9711 9750 9079 954H 9716	1,4P3KI 1,479K 1,5KG1 1,515I	93.00 73.81 87,31 69,44	71.16 87.60 69.42	71.31 69.32 64.05	10.83 13.13 9.09	17.22			),			· ! .	,	
•	-	No.	Formula	Ca	lculate	41	,,	Picre		=p leth lod		Hydre	<u></u>		٠.						
	•	III III IV	C <sub>10</sub> H <sub>10</sub> N <sub>2</sub> C <sub>10</sub> H <sub>20</sub> N <sub>3</sub> C <sub>10</sub> H <sub>20</sub> N <sub>3</sub> C <sub>10</sub> H <sub>20</sub> N <sub>3</sub> C <sub>10</sub> H <sub>20</sub> N <sub>3</sub> S	1 184	2 0.53	11.28 0. 14.42 0. 17.84 0. 9.94 0. 12.30 0.	~	101-10		121-1 121-1 175.5-	21, 21, 177	H-151 17-251 E	, ,			•					
_				te	ble.			79.517	• :		. F	•				50;	CBI	No.	.i , 10]		:
 ig. a: JB COD		ha: 07;				3: 2	:3J	u16!	5/	от	H R	ef:		[ਮ 06/		50;	CBF	No.	10]	-	

# MESHCHERSKIY, R.M.; KHAYETSKIY, I.K.

Variations in the stereotaxic coordinates of the rabbit brain. Zhur.vys.nerv.deiat. 12 no.1:186-190 Ja-F '62. (MIRA 15:12)

1. Institute of Higher Nervous Activity and Neurophysiology, U.S.S.R. Academy of Sciences, Moscov.
(BRAIN)

VERZHBLOVSKIY, M.V.; KHAYEV, A.B. (Donetak)

History of Donetsk A.M. Gor!kdi Medical Institute. Sov. zdrav. 21 no.4: 18-23 '62. (MIRA 15:5)

l. Iz kafedry organizatsii zdravookhraneniya i istorii meditsiny (zav. M.V.Verzhblovskiy) Donetskigo meditsinskogo instituta (rektor A.M. Ganichkin).

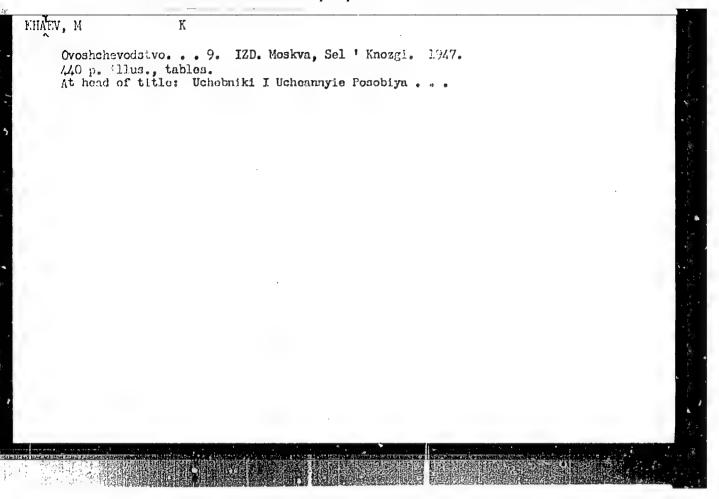
(DONETSK ... MEDICAL COLLEGES)

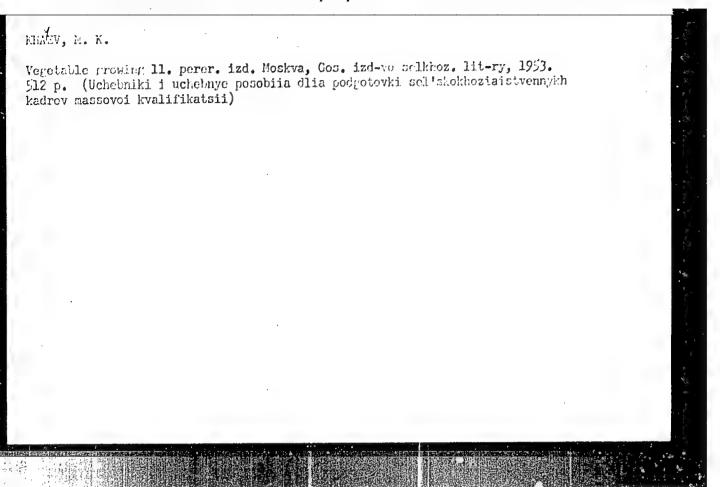
KHÆV, M. K.

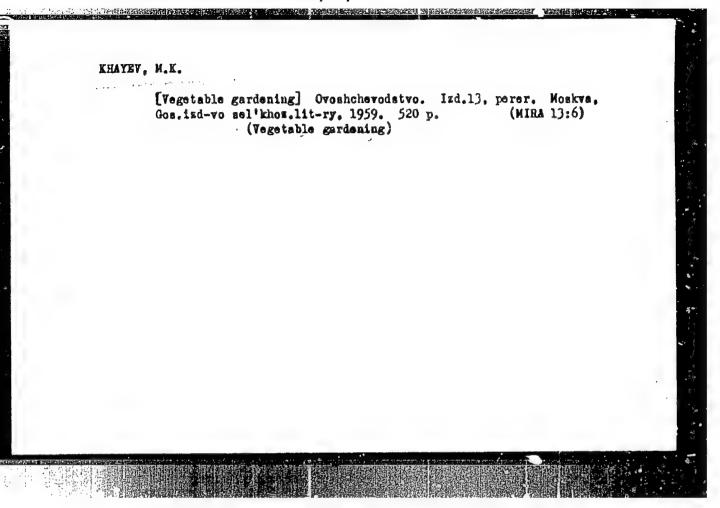
Vegetable growing. 8. stereotipnoe izd. Koskva, Sel'khozriz, 1943. h47 p. (Uchabniki i uchabnye posobila dlia podgotovki s.-kh. kadrov massovoi kvali-rikatsii)

KEWEV, M. K.

Sarly vegetables and seedlings in rotocted soil. Moskva. Moskovskii bol'shevik, 1945. 57 p.







FOMIN, A.A.; VISHNYAKOV, B.S.; PROKHOROV, V.P.; KHAYEV, V.M.; SHVEDSKIY, A.I.; ORLIN, A.S., doktor tekhn. nauk, prof., retsenzent; VASIL!YEVA, N.G., inzh., red.

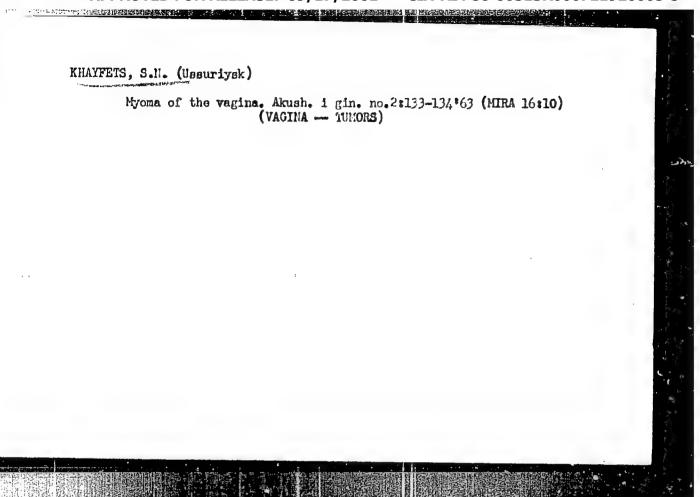
[Modern tractor diesel engines; atlas of designs] Sovremennye traktornye dizeli; atlas konstruktsii. Moskva, l'ashgiz, 1963. 232 p. (MIRA 16:12) (Tractors--Engines)

LEVCHUK, Ye.P.; KHAYET, V.S.

Device for converting a binary-decimal code to control signals of segmental-type digital indicators. Avtom. i prib. no.1: 29-30 Ja-Mr '65. (MIRA 18:8)

ROGATINA, Nina Prokof'yevna; FOPOVA, Zinaida Fedorovna; ARTMANIS, Stella Andreyevna; MEL'NIKOVA, Nina Ivanovna; AVDEYEVA Yekaterina Semenovna; KUZNETSOVA, Irina Pavlovna; ZHEREBINA, Anna Semenovna; VOTEVODINA, Aleksandra Dmitriyevna; KOLPAKOVA, Ninel' Yevgrafovna; KHAYEVA, Aleksandra Afanas'yevna; DUNDUKOVA, Valentina Petrovna; LAUSTEN, A.G., nauch. red.; GABOVA, D.M., red.; VINOGRADOVA, G.A., tekhn. red.

[Women's and children's light dress] Zhenskoe i detskoe legkoe plat'e.
Moskva, Gostekhizdat, 1962. 493 p.
(Dressmaking)



APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721920005-5"

EORDUKOVA, M.V., kand. sel'khoz. nauk; MEL'NIKOV, V.A., kand. sel'-khoz. nauk; KOMKOVA, M.N., kand. sel'khoz. nauk; ALEKSEYEV, L.Z., agronom; MAKSIMOVA, S.A., agronom; PAYATSYK, V.V., agronom; KHAYKEVICH, A.M., agronom; BYKOVA, M.G., red.; DEYEVA, V.M., tekhn. red.

[Handbook for the potato grower]Spravochnik kartofelevoda. Moskva, Sel'khozizdat, 1962. 335 p. (MIRA 16:2) (Potatoes)

Tolerance of PAS by patients with pulmonary tuberculosis.

Probl.tub. 37 no.2:89-91 '59. (MIRA 12:9)

1. Iz Protivotuberkuleznogo dispansera No.16 Kirovskogo rayona
Leningrada (glavnyy vrach - zasluzhennyy vrach RSFSR A.I.Petrova).

(TURRECULOSIS, PULMOMARY, them.

PAS, tolerance (Rus))

EHEYFETS, V.L.; REYSHAKHRIT, L.S.

Principles of the simultaneous discharge of nickel and hydrogen ions. Report No.2: Influence of temperature, cathode potential, and the presence of surface-active anions on the distribution of current between nickel and hydrogen. Uch.sap.LGU no.272: 40-47 159. (MIRA 13:1)

(Blectrochemistry) (Nickel) (Hydrogen)

KHAYGREKHT, S.I.

Strangulated intestinal obstruction in visceral inversion. Thirurgiia 32 no.6:66 Je 156. (MIRA 9:10)

1. Iz khirurgicheskogo otdeleniya Keminskoy rayonnoy bolinitay (glavnyy vrach S.I.Khaygrekht) Frunzenskoy oblasti. (INTESTINES--OBSTRUCTION)

# Surgical tactics in acute [cases of] foreign bodies in the gastrointestinal tract. Sov.zdrav.Kir. no.4:24-26 Jl-Ag '62. (MIKA 15:8) 1. Iz kliniki gospital'noy khirurgii No.1 (zav. - prof. Z.I. Igemberdiyev) Kirgizskogo gosudarstvennogo meditsinskogo irstituta. (ALIMENTARY CAHAL—FOREIGN BODIES)

ANIKIN, M., arkhitektor; VAYSMAN, M., inzh.; KHAYKEL'SON, Ye. [Khaikel'son, "2.], inzh.

District center "Sil'hosptekhnika." Sil'.bud. 13 no.10:10-11 0 '63. (MIRA 17:3)

KHAYKEVICH, A., agronom (Olessko, L'vovskoy oblasti)

The neighbor won't fall behind, Nauka i pered.op.v sel'khoz. 9 no.ll:7-11 % '59.

(Agriculture)

(MIRA 13:3)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721920005-5"

KHAYKEVICH, Adol'f Adol'f vich; CHERNYSHEV, A.N., kand. tekhn. nauk, red.; MAKOVSKAYA, R.P., red.

[Construction and kinematic design of mechanisms and systems for scale changes in automatic electric engraving machines; manual for students of the Faculty of Mechanical Engineering] Konstruktsiia i kinematicheskii raschet mekhanizmov i sistem izmeneniia masshtaba v elektrograviroval'nykh avtomatakh; uchebnoe posobie dlia studentov mekhaniko-mashinostroitel'nogo fakul'teta. Moskva, Poligraficheskii institut, 1964. 54 p. (MIRA 18:7)

Rayon Vysokikh uroshayev zerna. Jerkhne-Ural'skiy rayon Chelyab. doc. M., Goskul'tprosvečizdat, 1954. 19 s. s ill 22sm. (Vsesoyuz. s.kh. Vystavka). 15.000 eks. 20k - Na-obl. aut. ne ukazan. M.-54694, p 633.lst(47.812).

SO: Knizhnaya Letopis, Vol. 1, 1955

### "APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721920005-5 - nonestatute de la companya del companya de la companya del companya de la compa

AUTHOR:

Khaykevich, G.I.

SOV-117-58-10-9/35

TITLE:

A Photoelectric Protective Device for Presses (Fotoelektricheskoye zashchitneye ustroystvo k pressam)

PERIODICAL:

Mashinostroitel', 1958, Nr 10, pp 13 - 14 (USSR)

ABSTRACT:

The author points cut that the use of photoelectric safety devices attached to presses and machines guarantees more protection than mechanical devices and increases the work productivity by 15 to 20%. With alterations, the photoelectric device can also be used for the counting and checking of parts. The low voltage needed excludes electrical accidents. One such photoelectric protective device for presses is shown in situ (fig. 1), the arrangement of its component parts (fig. 2) and the theoretical principles are explained. There are 2 photos and 1 cir-

1. Photoelectric cells--Applications 2. Machines--Safety devices

Card 1/1

L 02'157-67

ACC 'IR. AP6027446

(N)

SOURCE CODE: UR/0308/66/000/008/0026/0027

AUTHOR: Khaykin, A. (Candidate of technical sciences, Head); Yagodkin, V. Candidate of technical sciences)

ORG: Knaykin Department of Electric Propulsion of Ships, LVIMU (Kafedra "Elektro-

TITLE: The operation of an icebreaker's electric propeller drive while breaking

SOURCE: Morskoy flot, no. 8, 1966, 26-27

TOPIC TAGS: propeller blade, ice breaker, marine engineering, ELECTRIC

ABSTRACT: The operation of an icebreaker in uniform-ice areas is characterized by increased bending moments on propeller blades while breaking ice and decreased moments in ice-free water. The propeller blades are subjected to maximum stress when the propeller is blocked by a cake of ice. A formula is given for the moment which must be applied to break up ice and for the relationship between this moment and the blade's deflection angle. The depth of the blade's bite into ice is expressed as a function of its designed pitch angle, deflection angle, and propeller diameter. The characteristic given for the moment as a function of the rpm makes it possible to determine those parameters of an ice breaker's propeller drive which will eliminate a blocking of the propeller. Orig. art. has: 2 figures and 6 formu-SUB CODE: 13/ SUBM DATE: none/ [GE]

Card 1/1 al

UDC: 629.124.791;629.12:538.582.5.037.00L3645

APPROVED, FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721920005-5

Electric propulsion motors with current rectifier blocks. Mor. flot. 24 no.5:25-27 My 164. (MIRA 18:12)

1. Leningradskoye vyssheye inzhenernoye morskoye uchilishche im. admirala Makarova.

KHAYKIN, A.B., kand.tekhn.nauk, starshiy nauchnyy sotrudnik KHOMYAKOY, M.H., red.: EXTERSON, M.M., tekhn.red.

[Elements of modern technology of electric ship propulsion]

Moscow. TSentral'nyi nauchno-issledovatel'skii institut morskogo
flota. [Elements of modern technology of electric ship propulsion]

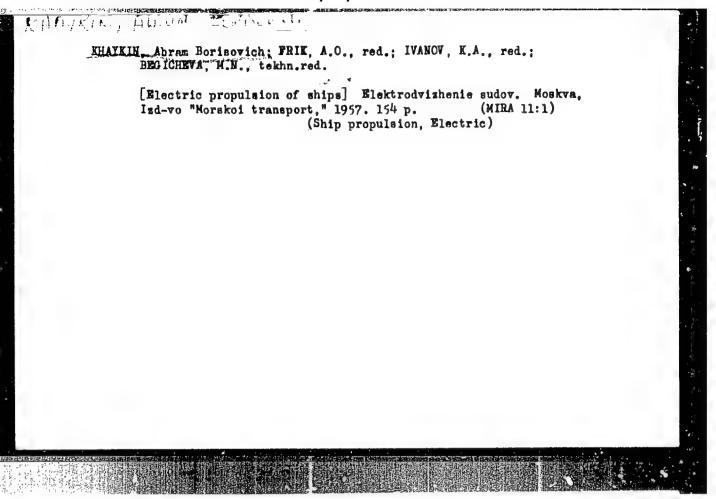
Elementy sovremennoi tekhniki transport," 1956. 69 p. (Informatsionnyi
abornik po obobshcheniiu opyta otechestvennoi i sarubezhnoi nauki i
tekhniki, no. 2) (MIRA 11:7)

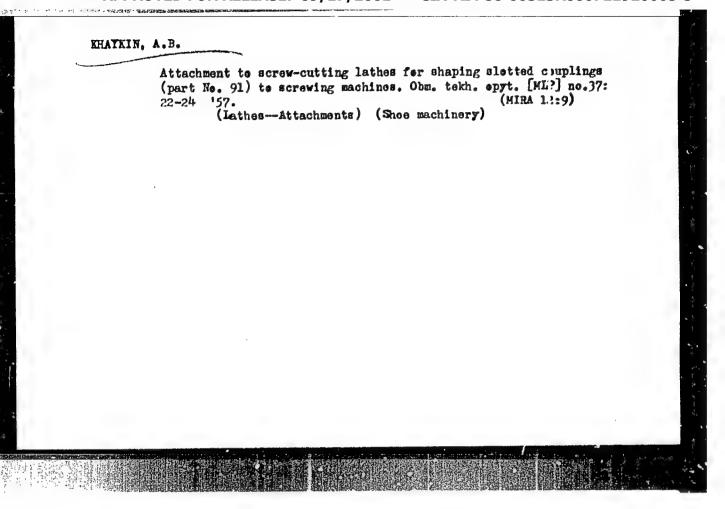
l.TSentral'nyy nauchno-issledovatel'skiy institut morskogo flota (for Khaykin). (Ship propulsion, Electric)

KHAYKIN, A.B., kandidat tekhnicheskikh nank.

Centralized use of power produced by hydroelectric power stations for power plants on river-going ships. Rech. transp.15 no.11:18-19 N 156.

(Electricity on ships) (Hydroelectric power plants)





KHAYKIN, A.B., kand.tekhn.nauk THE PROPERTY OF Approximate calculation of transient conditions in d.c. propeller electric units. Trudy TSNIIMF no.14:79-114 58.
(Ship propulsion, Electric) (MIRA 11:4)

(MIRA 13:7)

KHAYKIN, A.B., kand.tekhn.mauk

Testing electrically propelled ships and measures to improve their operation. Trudy NTO sud.prom. 8 no.5:149-172

(Ship propulsion, Mectric-Testing)
(Marine diesel engines-Testing)

159.

KHAYKIN, A B.

## PHASE I BOOK EXPLOITATION SOV/5324

- Polonskiy, Vladimir Ivanovich, and Abram Borisovich Khaykin
- Elektrokhody i perspektivy ikh razvitiya (Electrically Propelled Ships and the Prospects for Their Development) Lemingrad, Sudpromgiz, 1960. 499 p. 2,300 copies printed.
- Scientific Ed.: N.A. Kuznetsov; Ed.: Yu. I. Smirnov; Tech. Eds.: A.I. Konto ovich and Yu.N. Korovenko.
- PURPOSE: This book is intended for technical personnel in the shipbuilding industry, sea and river fleets, and design offices. It may also be useful to students of these fields in universities, tekhnikums, and naval schools.
- COVERAGE: The book contains information on the present state of electrical propulsion of ships and a description of electric propeller installations and their circuits. A considerable part of the book deals with the analysis of the technical characteristics of d-c and a-c electric propeller installations. Data on basic equipment elements, electrical propulsion circuits, and the

Card 1/8

Electrically Propelled Ships (Cont.)

SOV/5324

results of the testing of the majority of Soviet electrically propelled ships are reviewed. Basic trends in the development of electrical ship propulsion are discussed. The authors thank the following: P.I. Strumpe, L.K. Demchenko, and G.A. Meleshkin, Candidates of Technical Sciences, and Yepifanov, N.A. Agafonov, S.I. Antonov, and fe.I. Traper, Engineers, who supplied materials on electric propeller installations and their testing; V.M. Alekseyev, Candidate of Technical Sciences, and N.A. Kuznetsov, L.V. Chernikov, Ayzenshtaut, and B.A. Trofimov, Engineers, for their advice; and N.M. Khomikov, who organized a discussion of the manuscript. There are 18 references, all Soviet.

TABLE OF CONTENTS:

Foreword

3

List of Abbreviations and Symbols

4

Introdustion

13

Card 2/8

Automatic control systems for propulsion equipment with regular pitch propellers. Sudostroenie 26 no.10:18-24 0'60. (MIRA 13:10) (Ship propulsion) (Automatic control)

KHAYKIN, A.B., kand.tekhn.nauk; SHTUMPF, E.P., inzh.

Noncontact system of temperature signalization. Sudostroenie
28 no.3:28-31 Mr '62. (MIRA 15:4)
(Temperature regulators) (Electricity on ships)

KHAYKIN, A.B., kand.tekhn.nauk; TITAR, A., inzh.

Study of the transient processes of electric drives. Vest.
elektroprom. 33 no.5:53-56 My '62. (MIRA 15:5)
(Electric driving) (Marine engines)

KHAYKIN, Abram Borisovich; KHOMYAKOV, N.I., doktor tekhn. nauk, prof., retsenzent; FOLONSKIY, V.I., zas. deyatel' nauki i tekhniki, doktor tekhn. nauk, prof., red.; GORYANSKIY, Yu.V., red.izd-va; KOTLYAKOVA, O.I., tekhn. red.

[Dynamics of electric ship propulsion systems]Dinamika grebnykh elektricheskikh ustanovok. Leningrad, Izd-vo "Morskoi transport," 1962. 639 p. (MIRA 16:4) (Ship propulsion, Electric)

KHAYKIN, A.B., kand.tekhn.nauk; SHTUMPF, E.P., kand.tekhn.nauk

Torque measurement on propeller shafts during ship trials. Sudostroenie
29 no.1:69-72 Ja.'63. (MIRA 16'3)
(Shafting) (Torque)

POLONSKIY, V.I., doktor tokhn. nauk, prof.; KHAYKIN, A.B., dotsent

"Automatic systems on ships" by D.V. Vasil'ev, V.A. Mikhailov,
and B.N. Mikhailov. Reviewed by V.I. Polonskii, A.B. Khaikin.
Elektrichestvo no.5:94-96 My '69: (MIRA 16:7)

(Ships-Electric equipment)
(Vasil'ev, D.V.) (Mikhailov, V.A.)
(Mikhailov, B.N.)

KHAYKIN, A.B., kand.tekhn.nauk; CHIRKOV, V.A., inzh.

Marine electric power station of a line icebreaker with a self-excitation system. Sudostroenie 29 no.4:35-39 Ap 163. (MIRA 16:4) (Electricity on ships) (Ice breaking vessels)

KHAYKIN, A.B., kand.tekhn.nauk

Dynamics of electric ship propulsion systems on icebreakers, during the propeller interaction with ice. Sudostroenie 29 no.9: 31-35 S 163. (MIRA 16:11)

KHAYKIN, A.B., kand.tekhm.mauk; ZAKHAROV Yu.P., inzh.

Results of testing the electric propulsion plant of a harbor ice-breaker. Sudostroenie 31 no.1:40-42 Jg \*65.

(MIRA 18:3)

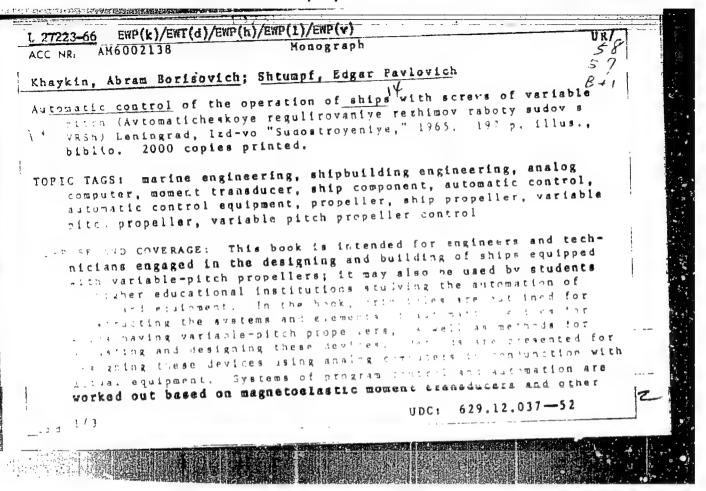
MIKHAYLOV, Vladimir Aleksandrovich; RUKAVISHNIKOV, Sergey
Borisovich; FREYDZON, Isaak Rubinovich; VYLKOST, V.D.,
inzh., retsenzent; KHAYKIN, A.B., kand. tekhn. nauk dots,
retsenzent; NORNEVSKIY, B.I., prof., nauchn. red.

[Electric propulsion of ships and electric driving of ship mechanisms] Elektrodvizhenie sudov i elektroprivod sudovykh mekhanizmov. Leningrad, Sudostroenie, 1965. 606 p. (MIRA 18:7)

KHAYKIN, Abram Borizov or DETURNI Finger race in a transfer red.

NVOCHKINA, G.P., rad.

[Automatic control of fine pure ion of transport exhimov race pitch properlies] forton means regular vanta reshimov race body audity s VRSm. [culturing did no reserve, 1965, 197] p. 1984 [Bir 2]



L 27223-66 ACC NR. AM6002138 measuring devices. Chapter VI and para, 15 of chapter IV were ten by V. A. Chirkov. TABLE OF CONTENTS [abridged]: Introduction -- 3 Ch. I. General information concerning automation systems on ships with variable-pitch propellers -- 6 Ch. II. Systems for the automatic control of main-engine output -- 19 Ch. III. Hethods for calculating several systems for propaller units with variable-pitch propellers -- 64 Cn. IV. Automatic program control of propeller units with variablepitch propellers -- 84 Ch. V. Automatic protection of main engines against overloading during the operation of variable-pitch propellers -- 129 Ch. VI. Hathematical modelling of automated systems equipped with variable-pitch propellers -- 161 Card 2/3

```
L T7223-66

ACT 10 AM6002[]8

Lests for automation systems of properior units enripped variable-pitch propellars -- 195

Appendices -- insert between 196-197

E: 13, 14, 09/ SUBM DATE: 17Aug65/ ORIG REF: 022/
```

VOROPAY, P.I., inzh.; KHAYKIN, A.I., inzh.; MATVEYEV, B.M., mekhanik

Effectiveness of the humidification of air entering a piston-type compressor. Prom. energ. 19 no.11:26-30 N \*64.

(MIRA 18:1)

GOPMAN, Petr Yefimovich; BEREZIN, Vitaliy Borisovich; KHAYKIN, Aron Moiseyevich; ZIL BERSHEYD, M.M., red.; LARIONOV, G.Ye., tekhn. red.

[Electrical engineering materials; a handbook] Elektrotekhnicheskie materialy; spravochnik. Moskva, Izd-vo "Energiia," 1964. 351 p. (MIRA 17:3)

संत्र/RM EWT(m)/EWP(j)/T/ETC(m)-6 22002-66 UR/0191/65/000/010/0040/0042 ACCESSION NR. AP5024507 RT4 871 3 004 15 AUTHOR: Khaykin, A. M., Parkshevan, R., R. IIIIE Effectiveness of utilizing doss-reinf med plastics in electrical engineer-SOURCE: Plasticheskiye massy, no. 10, 1465, 49-42 TOPIC TAGS: fiberglass, glass cloth, insulating material, glass fabric, insulated wire, electric engineering, electric equipment, polyester plastic, epoxy plastic, silicon plastic, electric insulation, reinforce destic plane product polymer, reit. ABSTRACT: This review of applications of various glass-reinferced plastics in the electrical industry includes comparisons of 1959 and 1963 consumptions, savings realized by use of these materials, and a few requirement projections. The use of glass fiber, glass cloth, glass cambric, glass textolite and fiberglass made of organo silicon polymers, epoxy and polyester resins and other electrical insulating materials in cable, winding, armatures, motors, tubogenerators, and electric locomotives is discussed. It is pointed out that there is need for increas Card 1/2

L 22002-66

ACCESSION NR: AP5024507

ed production of the various glass fibers and resins for sime alto and mass proto the to assure further progress a member to a might bring field

of all has None

ASSOCIATION: None

SURMITTED: 00

ENCL: 00 SUB CODE: 11,09

NR REF SOV: 000

OTHER: 000

PROSKUROVSKIY, Ya.S.; KHAYKIN, A.M.

Organization of the production of high-voltage insulators. Stek.t ker. 19 no.4:37-38 Ap 162. (MIRA 15:8) (Electric insulators and insulation)

MARKOV, M.N.; KHAYKIN, A.S.

Optical properties of massive bismuth in the 3-36 pm. region of the spectrum. Opt.i spektr. 9 no.4\*487-492 0 '60. (MIRA 13:11) (Bismuth--Optical properties)

36502

24.3900

5/051/62/012/003/013/016 E032/E314

AUTHORS:

Vil'ner, L.D. (Deceased), Rautian, S.G. and

Khaykin, A.S.

TITLE:

On some possible applications of the Fabry-Perot

interferometer with internal illumination

PERIODICAL: Optika i spektroskopiya, v. 12, no. 3, 1962, .437 - 439

TEXT: The authors are concerned with the properties of a Fabry-Perot interferometer containing an emitting medium between the plates. This type of modification of the Fabry-Perot interferometer is of interest in view of the suggestion made by A.M. Prokhorov (Ref. 1 - ZhETF, 34, 1658, 1958) that it may be suitable for use as a resonator for a quantum oscillator (Ref. 2 - N.G. Basov, O.N. Krokhin, Yu.M. Popov - Usp. fiz. nauk, 72, 161, 1960). Other applications are discussed in the present paper. It is assumed that the medium between the plates has a finite absorption coefficient and emits uniformly throughout its volume. A formula is derived for the intensity

Card 1/2

#### "APPROVED FOR RELEASE: 09/17/2001 CIA-R

CIA-RDP86-00513R000721920005-5

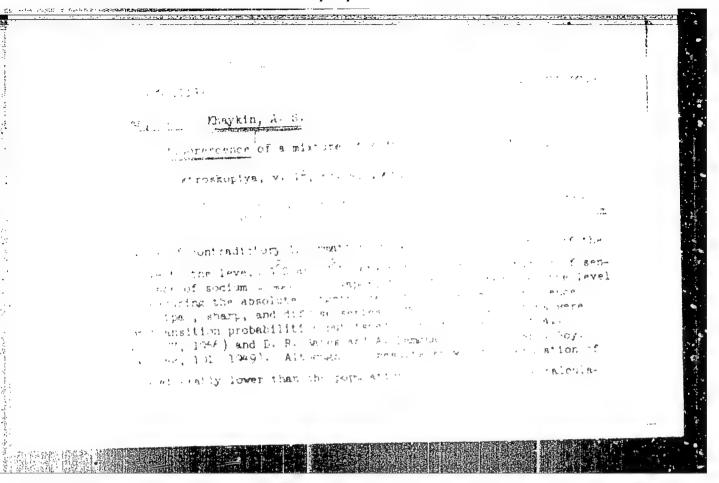
S/051/62/012/003/013/016 E032/E314

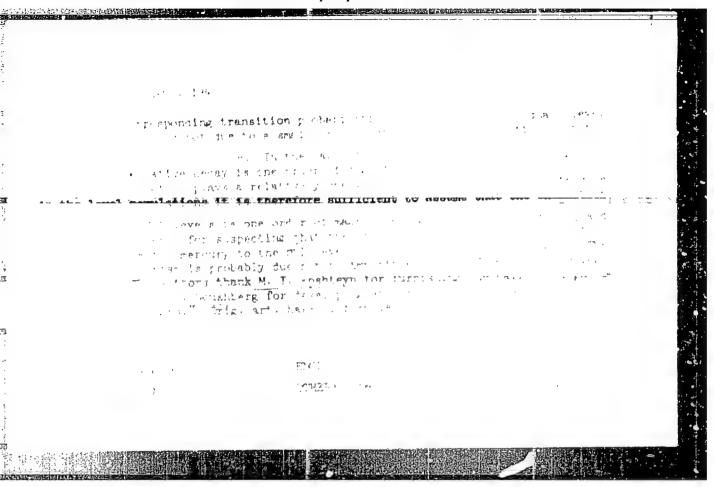
distribution and it is shown that the resulting interference pattern takes the form of concentric interference rings. Analysis shows that this arrangement improves the line-to-background ratio and may therefore be suitable for the spectral analysis of very small quantities of impurities and similar applications. There is 1 figure.

SUBMITTED: June 12, 1961

On some possible applications ....

Card 2/2





L 20536-66 EWT(1, IJP(c) AT

ACC NR: AP6008734

SOURCE CODE: UR/0386/66/003/003/0110/0114

AUTHOR: Khaykin, A. S.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Institut fizit)
Akademii nauk SSSR)

TITLE: Investigation of electron collisions with excited meon atoms

SOURCE: Zhurnal eksperimental'noy i teoreticheshoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 3, 1966, 110-114

TOPIC TAGS: gas laser, electron collision, meon, excited state, nuclear energy level, electron transition

ARSTRACT: The author shows that much of the information necessary to solve various thysical problems connected with high-temperature nonequilibrium plasma (low-tessin gas discharge, lasers, ionosphere, astrophysical problems, etc., especial-vibe effective cross sections for excitation and de-excitation of the atoms as the colde with electrons, when the transitions are retreen excitet states, for extract there are no experimental data, can be obtained with the aid of gas lasers. The concrete case of electronic collisions of the type Ne 5s 14 17 - e Ne nd' e is considered for n = 4 and 5, using a nelium-neon laser generating the 5326 Å

Card 1/2

L 20536-66

ACC NR: AP6008734

line. The inside diameter of the discharge tube was 3 mm and the mixture pressure ~1 torr at a Ne/He ratio ~ 1:7. The discharge current was varied from 10 to 75 ma the corresponding change in  $n_e$  was from 4.5 x 10  $^{11}$  to 5.25 x  $10^{12}$  cm  $^{-3}$ . The electron temperature was  $T_e \approx 7$  ev. Experimental plots are presented for the Ne levels and and and the calculations are tabulated. It is concluded that in a heliumneon laser discharge the electronic de-excitation of the 4 levels of Ne can play the same role as radiative transitions. Analogous deductions can also be drawn with respect to the role of electronic collisions in the de-excitation of the Ne eye. Fair  $\frac{1}{2}$  \cdot \text{The experiments show that even a relatively simple model is valid in some cases, and can be used for a direct determination of the effective cross sections of individual electronic processes. The range of applicability of the retain an be extended by making the model more complicated. The author is grateful to a G. Rautian and G. G. Petrash for valuable discussions. Orig. art. has: 2 figures, 5 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 06Dec65/ ORIGIREF: 003/ OTH REF: 002

- >10 2/2 - - 1C

ACC NR: AP6024862

SOURCE CODE: UR/0056/66/0051/001/0038/0048

AUTHOR: Khaykin, A. S.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: Investigation of the processes of collisions with excited atoms in gac lasers

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 1, 1966, 38-48

TOPIC TAGS: nuclear energy level, electron collision, excited state, gas laser, gas discharge plasma

ABSTRACT: The author investigates discharge in a gas the atoms of which have energy levels schematically represented in Fig. 1. It is assumed that population inversion occurs at the 2+1 transition. The appearance of oscillation when the plasma is placed in a resonator leads to an increase in the rate of atomic transition from level 2 to level 1 (in the absence of oscillation this rate is determined by the probability of the spontaneous transition  $A_{21}$ ). The author presents a new method of investigating various processes in the transmission of excitation in the plasma of gas lasers, which makes it possible to measure directly the quantities  $\langle au \rangle$  for electronic (as well as atomic) collisions with excited atoms. The author also shows the feasibility of measuring the probabilities of the radiation transitions between the excited atomic

Card 1/2

ACC NR. AP6024862

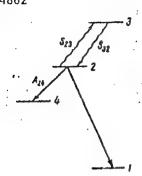


Fig. 1. Schematic of atom levels

1.

SUB CODE: 20/ SUBM DATE: 01Feb66/ ORIG REF: 007/ OTH REF: 007/ ATD PRESS:

Card 2/2 0

## KHAYKIN, A.la.

Method for intracutaenous skin tests. Probl.tub. 39 no.3: 104-106 '61. (MIRA 14:5)

l. Iz kafedry tuberkuleza (zav. - prof. A.Ye. Rabukhin) TSentral'nogo instituta usovershenstvovaniya vrachey (dir. M.D. Kovrigina)
1 3-y gorodskoy klinicheskoy tuberkuleznoy bol'nitsy "Zakhar'ino"
(nauchnyy rukovoditel' - prof. F.I. Levitin, glavnyy vrach V.P.
Petrik).

(TUBERCULIN)

## KHAYKIN, A.Ya.; FRADKIN, V.A.

Results of determining the level of a specific allergy in various forms of pulmonary tuberculosis. Sov. med. 25 no.10:33-37 0 '61. (MIRA 15:1)

l. Iz kafedry tuberkuleza (zav. - prof. A.Ye.Rabukhin) TSentral'nogo instituta usovershenstvovaniya vrachey (dir. - M.D.Kovrigina) i 3-y Gorodskoy klinicheskoy tuberkuleznoy bol'nitsy "Zakhar'ino" (nauchnyy rukovoditel' - prof. F.I.Levitin, glavnyy vrach V.P.Petrik). (TUBERGULIN\_.TESTING) (TUBERGULOSIS)

## KHAYKIN, A.Ya.

Side effects in the treatment of tuberculosis with various isonicotinic acid derivatives. Probl. tub. 42 no.3:85-87 \*64.

(MIRA 18:1)

1. Chelyabinskiy oblastnov protivotuberkuleznyy dispanser (glavnyy vrach D.F.Belash).

